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Multiscale Seismic Measurements for Quantifying Fracture Properties In Gas Reservoirs.

Summary:
Over the past several years surface seismic methods, 2-D and 3-D, have been used to infer subsurface anisotropy with varying degrees of success. The inferred anisotropy has then been used to infer fracture properties with the assumption that this may lead to an understanding of reservoir permeability. This project is using multi-scale seismic measurements (well log, single well, VSP and surface seismic) to determine seismic attributes of fractures controlling fluid flow. A central objective of this work is to determine the optimum combination of methods to map fractures controlling fluid flow. Recent results from the San Juan basin will be presented.